System and Method for Recognizing Touch Typing under Limited Tactile Feedback Conditions

Abstract of the Disclosure

A system is disclosed for recognizing typing from typing transducers that provide the typist with only limited tactile feedback of key position. The system includes a typing decoder sensitive to the geometric pattern of a keystroke sequence as well as the distance between individual finger touches and nearby keys. The typing decoder hypothesizes plausible key sequences and compares their geometric pattern to the geometric pattern of corresponding finger touches. It may also hypothesize home row key locations for touches caused by hands resting on or near home row. The resulting pattern match metrics may be combined with character sequence transition probabilities from a spelling model. The typing decoder then chooses the hypothesis sequence with the best cumulative match metric and sends it as key codes or commands to a host computing device.